Mr. Chairman and Members of the Commission:

My wife and I own and operate LARIAT.NET, which was one of the world's first wireless broadband providers if not the very first. We're the quintessential "mom and pop" Internet service provider, having operated our network (which originated as a cooperative but is now a private business) continuously since 1993. It currently serves Laramie, Wyoming and surrounding areas of Albany County.

Currently, we have difficulty reaching many rural residents who are in need of broadband services due to the limited reach of systems which conform to FCC Part 15 regulations for the 900 MHz, 2.4 GHz, and 5.8 GHz bands. These bands are also plagued by overcrowding and by large amounts of interference from household consumer devices. Moreover, because the rural population in many areas of our county is very sparsely dispersed, reaching them via repeaters using currently available spectrum is economically infeasible; in our county, most such repeaters would serve so few residents that it could not earn back the costs of tower construction and of radio equipment.

The ability to use the spectrum contemplated in this proposed rulemaking is crucial to allow us to serve many of these rural residents. We would like to request that the Commission make this spectrum available on an unlicensed basis, but restrict its use to the provision of outdoor wireless broadband.

Why restrict use to outdoor applications only? The justification for this restriction (which has precedent in current Part 15 rules that limit certain frequencies to indoor use) lies in recent real life experience with other Part 15 bands where wireless Internet service providers (or WISPs, as they are sometimes called) currently operate -- in particular, the 900 MHz, 2.4 GHz, and 5.8 GHz bands. WISPs often find that a single cordless phone -- which, under the current regulations, is allowed to radiate as much power as a WISP's access point -- is sufficient to disrupt Internet service to dozens or even hundreds of users if it happens to be operated too close to the access point. (Our access points have likewise experienced potent interference from indoor Wi-Fi equipment being operated close to a window or in an adjacent office building.) It is far too easy for such a device to drown out the faint signal from a distant client. If it does so, residents who rely on these links might lose not only Internet access but also their telephone service if they are relying upon voice over IP.

Another factor to consider is that consumers who have both indoor and outdoor wireless networking equipment (that is, a wireless broadband connection to the outside world and an in-house wireless LAN) often experience interference between the two -- but are not knowledgeable to recognize that the problem has arisen because the two are operating on the same frequencies or frequency band. We often have to resolve such problems for consumers, who sometimes have to go to

considerable expense to fix them.

Finally, there has been no assertion -- in the comments on this proceeding or anywhere else we can find -- that there is a shortage of spectrum which can be used indoors. It is outdoor wireless broadband -- in particular, applications which span the last mile to 20 miles -- which need more spectrum.

The additional range which would be afforded by the proposed power limits would be vital to overcoming the limitations which currently prevent us from serving many potential customers. While in theory the Telecommunications Act of 1996 limits the ability of cities and counties to restrict the construction of towers, in practice they can -- and do -- limit the height, density, and location of towers to such an extent that few can be built. Co-location on towers owned by cellular telephone companies -- where they exist -- is likewise problematic, since exorbitant rents (often intentionally set at absurdly high rates to disable competition) make the use of such towers infeasible in many cases. (Again, this is especially true when low population densities limit the revenue that can be realized from an installation.) Only by increasing the range that is afforded to WISPs from the towers and buildings they do build or occupy can the Commission ensure that it is feasible to reach many areas with wireless broadband service.

While we are advocates of spectrum etiquettes, we recognize that at this late date it is not practical to propose etiquettes for the use of this spectrum. We therefore ask the Commission to allow the use of this spectrum on an unlicensed basis in the same manner as the aforementioned Part 15 bands.

Respectfully submitted,

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